

**BASIS FOR THE AMENDMENT**

Claim 1 has been amended as supported by Claim 1 as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-14 will now be active in this application.

**REMARKS**

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **Claim 1** relates to a process for the preparation of polyisobutene comprising at least 75 mol% of terminal vinylidene groups, wherein isobutene or an isobutene-containing hydrocarbon mixture is polymerized in a liquid phase in the presence of a boron trifluoride complex catalyst having a composition

$$a(\text{BF}_3) : b(\text{Co1}) : c(\text{Co2})$$

wherein

**Co1 is at least one tertiary alcohol,**

**Co2 is at least one compound selected from the group consisting of water, primary alcohols, secondary alcohols, alkanecarboxylic acids and phenols,**

**the ratio c:b is from 0.9 to 1.8 and**

**the ratio (b+c):a is from 0.9 to 3.0.**

Yun et al fail to disclose or suggest a process as claimed using a catalyst as claimed.

Applicants wish to thank Examiner Bullock for the helpful discussion with Applicants' Representative on June 25, 2008. Claim 1 as amended was discussed. During this discussion it was noted that Yun et al describe a method of producing high reactive polybutenes by polymerizing isobutene or a C4 hydrocarbon feedstock containing isobutene, by using a catalyst. The catalyst of Yun et al comprises secondary alkylether, tertiary alcohol and borontrifluoride.

In contrast, the claimed process requires a catalyst which besides borontrifluoride and the tertiary alcohol requires protic compound (Co2), namely water, primary alcohols,

secondary alcohols, alkancarboxylic acids or phenols, instead of the aprotic dialkylether.

Such protic compounds are not taught in Yun et al.

Further, the dialkylether (secondary alkylether) is an essential feature of the catalyst of Yun et al and there is no disclosure or suggestion in Yun et al to substitute the secondary alkylether with methanol, ethanol, 2-propanol or 2-butanol as a component of the catalyst. This has been acknowledged by the Examiner. See the paragraph bridging pages 3 and 4 of the Office Action.

While Yun et al disclose that protic compounds such as secondary or primary alcohols can be used instead of tertiary alcohols (paragraph [0020] at page 3 of Yun et al states “the content of vinylidene is lowered when tertiary, alcohol is used compared with cases when secondary or primary alcohol is used”), there is no disclosure or suggestion to replace the secondary alkylether with secondary or primary alcohols.

Therefore, the rejection of Claims 1, 2, 4-14 under 35 U.S.C. § 103(a) over Yun et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

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Reply to Office Action of: April 1, 2008


This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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